

# HEAT-SHRINKABLE TUBING

## HTS-AN25(TW)

SUMITUBE<sup>®</sup>, Made of Elastomer, Extra thin-walled, Flexible, Diesel resistant, High Temperature



### Highlights

- Operating temperature - 75 °C to 150 °C
- Diesel-, abrasion-, and fluid resistant
- Excellent mechanical and electrical protection
- Printed
- Extra thin-walled
- Shrink rate 2:1
- Shrink temperature: 170 °C
- RoHS and REACH conform
- Approvals: VG 95343 T05D, VG95343-14, VG95343-2, VDE File 088218, SAE-AS23053/16

### Dimensions

| Art.-No. | Before Shrinkage (mm) |                      | After Shrinkage (mm)  |                       | Standard Packaging |         |
|----------|-----------------------|----------------------|-----------------------|-----------------------|--------------------|---------|
|          | Inch                  | Inner Diameter (min) | Inner Diameter (max.) | Wall Thickness (nom.) | Coil (m)           | Box (m) |
| Z87122   | 3/32                  | 2.40                 | 1.20                  | 0.40 - 0.60           | 150                | 600     |
| Z87123   | 1/8                   | 3.20                 | 1.60                  | 0.40 - 0.60           | 150                | 600     |
| Z87124   | 3/16                  | 4.80                 | 2.40                  | 0.40 - 0.60           | 60                 | 300     |
| Z87125   | 1/4                   | 6.40                 | 3.20                  | 0.50 - 0.80           | 60                 | 300     |
| Z87126   | 3/8                   | 9.50                 | 4.75                  | 0.50 - 0.80           | 60                 | 180     |
| Z87127   | 1/2                   | 12.70                | 6.40                  | 0.50 - 0.80           | 60                 | 180     |
| Z87128   | 3/4                   | 19.10                | 9.50                  | 0.60 - 0.90           | 30                 | 90      |
| Z87129   | 1                     | 25.40                | 12.70                 | 0.75 - 1.05           | 30                 | 90      |
| Z87130   | 1-1/4                 | 31.50                | 15.00                 | 0.80 - 1.20           | 30                 | 90      |
| Z87131   | 1-1/2                 | 38.00                | 19.10                 | 0.80 - 1.20           | 30                 | 60      |
| Z87132   | 2                     | 51.00                | 25.40                 | 0.90 - 1.40           | 30                 | 60      |

### Technical characteristics

| Property | Test                    | Inspection requirements     | Typical values    |
|----------|-------------------------|-----------------------------|-------------------|
| Physical | Longitudinal change     | VG 95343-5, 3% to -10%      | Passed            |
|          | Tensile strength        | VG 95343-5, min. 12 MPa     | ≥ 19 MPa          |
|          | Elongation at break     | VG 95343-5, min. 350%       | ≥ 420%            |
|          | Secant modulus          | VG 95343-5, 15 to 35 MPa    | 20 MPa            |
|          | Abrasion resistance     | VG 95343-5, Procedure A & B | Passed            |
| Thermal  | Operating temperature   | SUMITOMO Standard           | -75 °C to +150 °C |
|          | Min. Shrink temperature | For complete shrinkage      | 165°C             |

Created by: VS 20.11.2020

We reserve the right to make product changes.

**RELIABLE, FLEXIBLE,  
CUSTOMER-ORIENTED**

**HEINRICH THULESIUS GMBH & CO. KG**  
Zum Panrepel 15, D-28307 Bremen, GERMANY



#### SERVICE

Tel: +49 (0) 421-4895-0  
Fax: +49 (0) 421-4895-225  
E-Mail: [info@thulesius.de](mailto:info@thulesius.de)  
[www.thulesius.de](http://www.thulesius.de)

**SUMITOMO  
ELECTRIC  
GROUP**

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| Property   | Test  | Inspection requirements                                   | Typical values              |
|------------|---|---|-----------------------------|
| Thermal    | Shrinkage begins at                                     |   | 90°C                        |
|            | Heat shock (215 °C x 4 h)                               | VG 95343-5, no cracking, flowing or dripping              | Passed                      |
|            | Elongation after heat shock (215 °C x 4 h)              | VG 95343-5, min. 200%                                     | ≥ 300%                      |
|            | Tensile strength after heat shock (215 °C x 4 h)        | VG 95343-5, min. 8 MPa                                    | ≥ 10 MPa                    |
|            | Low temperature flexibility (-75 °C x 4 h)              | VG 95343-5, no cracks                                     | Passed                      |
|            | Elongation after thermal aging (160 °C x 168 h)         | VG 95343-5, min. 200%                                     | ≥ 290%                      |
|            | Tensile strength after thermal aging (160 °C x 168 h)   | VG 95343-5, min. 10 MPa                                   | ≥ 11 MPa                    |
|            | Elongation after copper corrosion test (135 °C x 168 h) | VG 95343-5, min. 200%                                     | ≥ 280%                      |
| Chemical   | Long term aging test                                    | VG 95343-5, min. 75% (Elongation)                         | ≥ 120%                      |
|            | Flammability  | VG 95343-5, Procedure A                                   | Passed                      |
|            | Water absorption  | VG 95343-5, max. 2,0%                                     | ≤ 1,0%                      |
|            | Fluid resistance (incl. Diesel fuel)                    | VG 95343-5  |                             |
|            | - Change in mass after fluid test                       | VG 95343-5, max. 20%                                      | ≤ 5,5%                      |
|            | - Tensile strength after fluid test                     | VG 95343-5, min. 12 MPa                                   | ≥ 18 MPa                    |
|            | - Elongation after fluid test                           | VG 95343-5, min. 300%                                     | ≥ 360%                      |
|            | Fungus resistance                                       | VG 95343-5 (ISO 846 A+B), Zgf: Min. 12 MPa / D: Min. 350% | Passed                      |
| Electrical | Sea water resistance (50 °C x 168 h)                    | VG 95343-5, Zgf: Min. 12 MPa / D: Min. 350%               | Passed                      |
|            | Ozone resistance  | NF F 00-608, no cracking or sweating                      | Passed                      |
| Electrical | Volume resistance                                       | VG 95343-5, min. 10 <sup>11</sup> Ω/cm                    | ≥ 3 x 10 <sup>11</sup> Ω/cm |
|            | Dielectric strength                                     | VG 95343-5, min. 8 kV/mm                                  | ≥ 20 kV/mm                  |

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